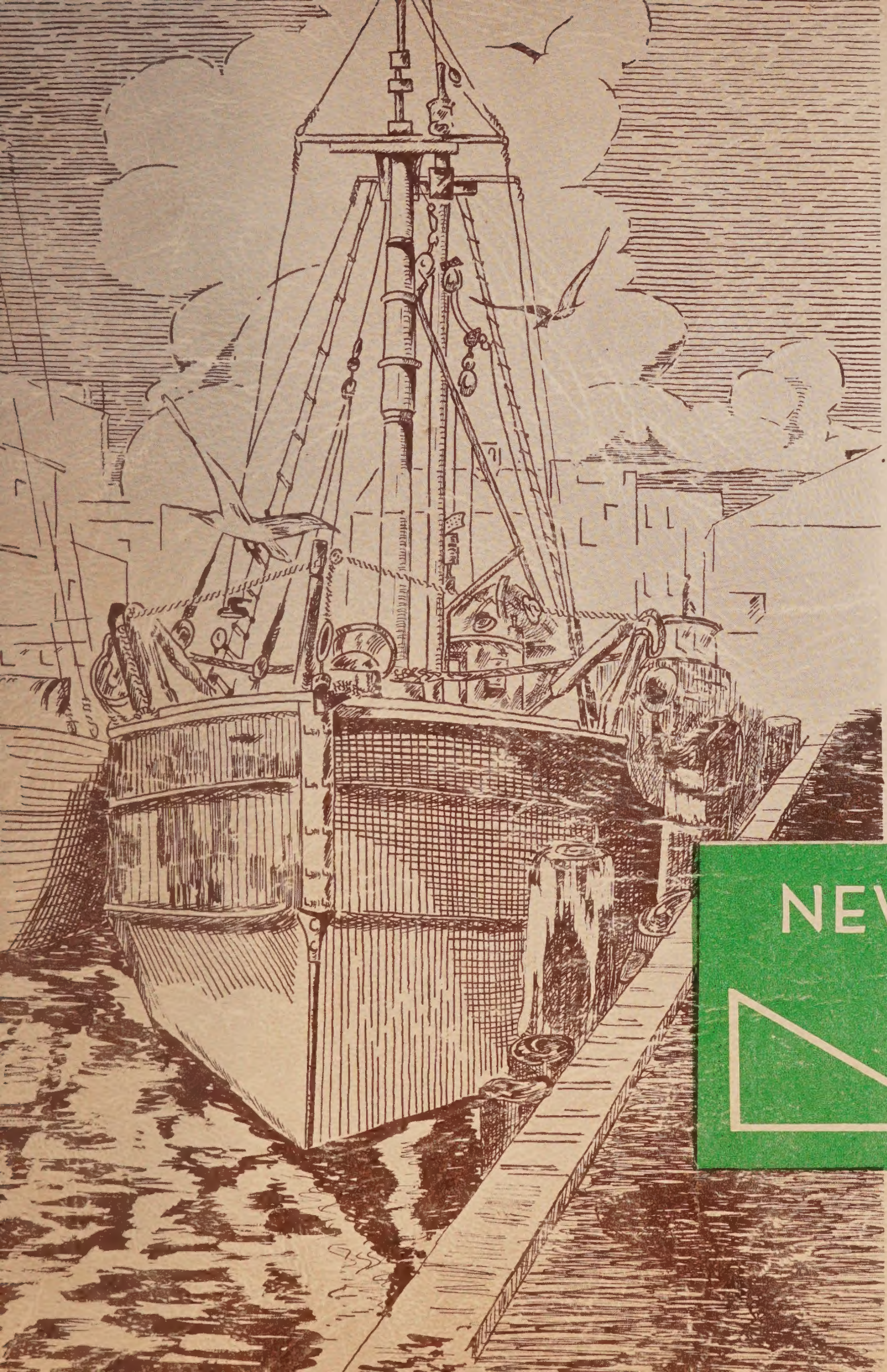

NEW BEDFORD VOCATIONAL HIGH SCHOOL

NEW BEDFORD VOCATIONAL HIGH SCHOOL

181 HILMAN ST.
NEW BEDFORD, MASS.

MEMBER N. E. A. C. S.

DIRECTOR – Z. WALTER JANIAK

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INDEX

VOCATIONAL EDUCATION 6

ADMISSION REQUIREMENTS 7

CURRICULUM GUIDE 8

APPLICATION 9

ACADEMIC DEPT. . . . . 11 - 12

RELATED DEPT. 13

AUTOMOBILE DEPT. . . . . 14 - 15

CARPENTRY DEPT. . . . . 16 - 17

MACHINE DRAFTING DEPT. 18

ELECTRICAL DEPT. . . . . 19 - 20 - 21
(At present an Electronic Technician Training course
is being considered for adoption.)

INDUSTRIAL DESIGN DEPT. 22

MACHINE DEPT. . . . . 23 - 24 - 25

STEAM ENGINEERING DEPT. 26

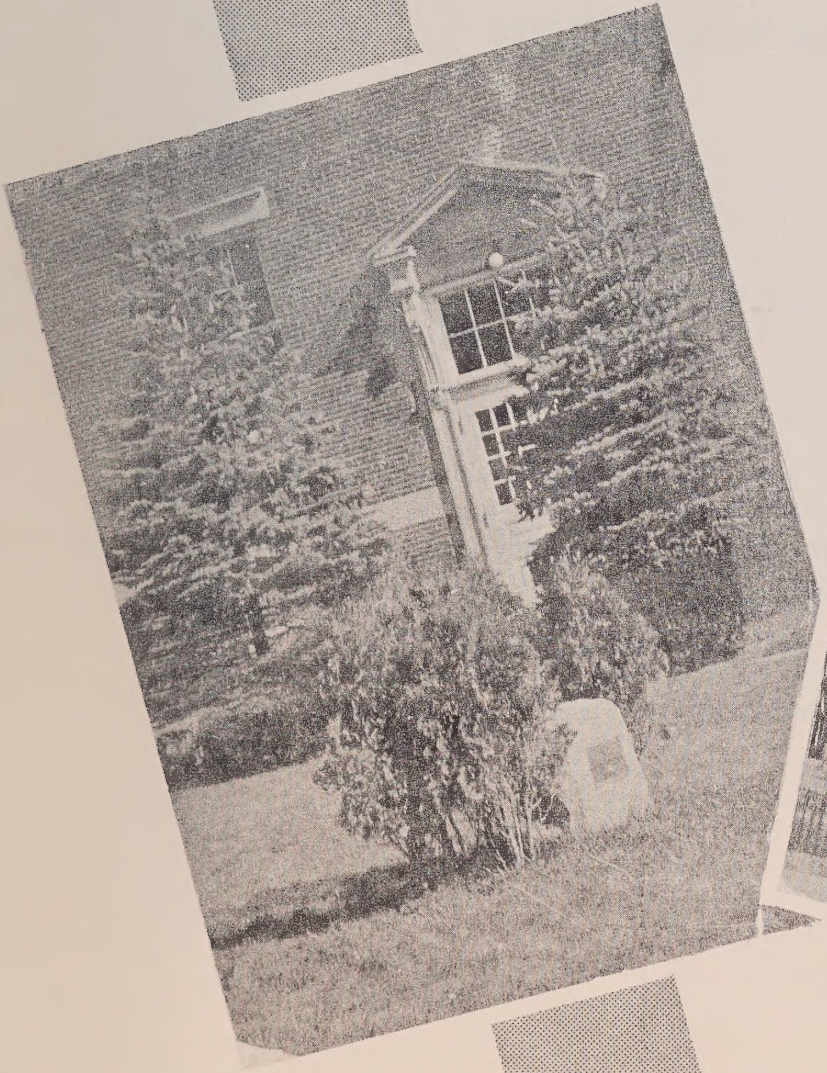
WELDING DEPT. 27

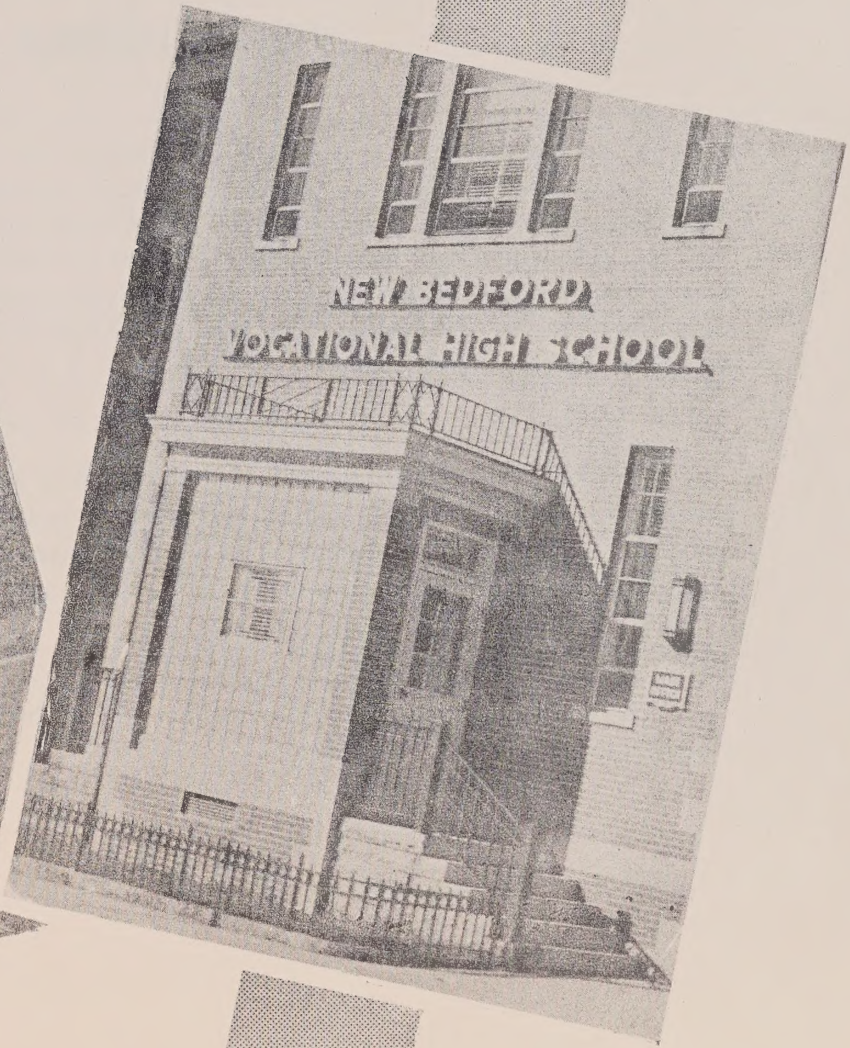
EX. CURRICULAR ACTIVITIES 28

GUIDANCE 28

PROMOTION & GRADUATION REQUIREMENTS 28

"...he who hath a trade - hath an estate"





NEW BEDFORD
VOCATIONAL HIGH SCHOOL

VOCATIONAL EDUCATION

Good education must develop citizens who work as well as play; produce as well as consume; create as well as appreciate. Vocational Education, for youth and adults, is playing a major part in reaching these objectives. Preparation for work provides functional education for the American people, developing occupational competency along with social and civic responsibilities.

Vocational education is functioning in two important ways to justify American faith in education. It makes secondary schools more attractive and meaningful for a larger number of youth. At the same time Vocational Education creates the basic skills and technical knowledge necessary to increase the productive capacity of workers, upon which depends America's productive might and national strength.

Vocational Education prepares students not only in "how to live" and "what to live for", but also in "how to make a living".

ADMISSION REQUIREMENTS

Admission is open to applicants who are at least 14 years of age and/or have successfully completed the 8th grade. Admission is determined by a review of the applicant's previous scholastic record and supplemented by examinations in Mechanical Aptitude, English Composition, Arithmetic, Reading Vocabulary and Reading Comprehension.

In all instances retention in this school after initial admission is based upon the demonstrated ability of the pupils to profit by the instruction offered.

The student considering application for admission has certain responsibilities:

1. He must have the proper attitudes and respect for the dignity of work.
2. He must be able to get along with his fellow students.
3. He must have respect for the property and person of others.
4. He must be regular and punctual in attendance.
5. He must be diligent in study. Attendance at this school is a privilege; there is no justification for the expenditure of public funds for those who show no desire to learn and have no regard for obeying school rules and regulations.

CURRICULUM GUIDE

Academic and Related Departments

Freshman Year		Sophomore Year		Junior Year		Senior Year	
English	A-101	English	A-201	English	A-301	English	A-401
Gen. Science	A-102	Gen. Science	A-202	U.S. History	A-302	U.S. History	A-402
Civics	A-103	Civics	A-203	Economics	A-303	Economics	A-403
Related Math.	R-101	Algebra I	A-204	*Plane Geometry	A-304	*Physics	A-404
Related Drawing	R-102	Related Math.	R-201	Related Math.	R-301	*Algebra II	A-405
		Related Drawing	R-202	Related Drawing	R-302	Related Math.	R-401
						Related Drawing	R-402

*Required in Electrical, Machine, and Machine Drafting Departments. Available as electives in other departments, subject to grades of 75% or better in previous math. courses.

The program of education and training at the New Bedford Vocational High School is organized around a three week cycle. All students spend two consecutive weeks in shop or trade training and attend Academic and Related classes during the third week. This cycle repeats itself throughout the school year.

Because of this time allocation, courses in the Academic Department are necessarily accelerated. A considerable amount of home work is required in these subject fields. All students are required to complete a progressive series of courses in English, U.S. History, Civics, Economics, General Science, and Mathematics. These subjects constitute the "core" of our Academic curriculum. Subject content in each area is comparable to that offered in any public high school in the Commonwealth.

In addition, Physics, Algebra II and Plane Geometry are required in certain departments and are elective in others.

NEW BEDFORD VOCATIONAL HIGH SCHOOL

APPLICATION FOR ADMISSION

To Be Completed By Applicant

School ....

Name .... 8 9 10 11 12 *Encircle Your Grade*

Last M First

Height ☐ Weight ☐

Age ☐ Date of Birth ☐ Year ☐ Mo. ☐ Day

Address ....

City or Town Street Telephone

Select and Number in Order of Preference 1 - 2 - 3

AUTOMOBILE	☐	INDUSTRIAL DESIGN	☐
CARPENTRY	☐	MACHINE SHOP	☐
DRAFTING	☐	STEAM ENGINEERING	☐
ELECTRICAL	☐	WELDING	☐

Do Not Select Three Unless They Are Acceptable

To Be Completed by Sending School

Scholastic Record

ENGLISH	☐	MATH.	☐	CITIZENSHIP OR CONDUCT	☐
HISTORY	☐	DRAWING	☐	OTHER SUBJECT	☐
ATTENDANCE	☐	OTHER SUBJECT	☐	I. Q.	☐

Achievement Data

READING VOCABULARY	G. P.	☐
READING COMPREHENSION	G. P.	☐
TOTAL READING	G. P.	☐

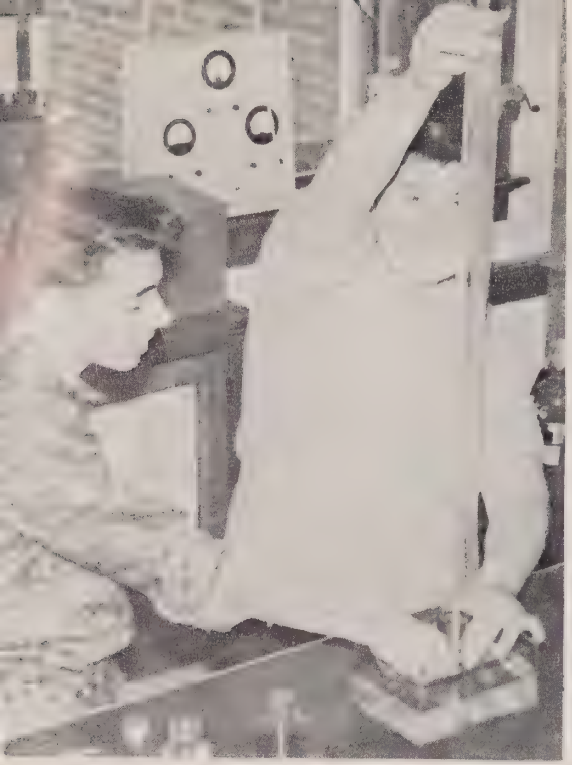
Comments ______________________________

______ Year ______ Mo. ______ Day

Date of this Application

____

Signature of Parent or Guardian



CIVICS

This course develops the basic needs, abilities, attitudes and skills for understanding our American democracy with its duties and responsibilities of American citizenship.

Freshman civics emphasizes respect for law, knowledge of the Bill of Rights, free enterprise and American way of life.

Sophomore civics presents parallels between the activities of federal and state governments and the school and community experiences of the student. Basic citizenship.

AMERICAN HISTORY

Juniors and seniors are given a fundamental study of American History to show its contribution to the development toward the making of our country and the consequent struggles for freedom.

Junior American History develops the abilities, attitudes and skills for the needs and interests of the students. The influences of the past on our daily lives.

Senior study covers the period from 1865 to the present day. This half also stresses the social and cultural changes in American living. Develop oral and written expression on the influences of economics and geography in the development of our nation.

ACADEMIC DEPARTMENT

ENGLISH

The English course at Vocational aims at giving the student a background in English that he will use throughout life. Conventional high school material is covered, plus instruction designed to increase the pupil's ability to express himself about methods and techniques related to the position he will someday hold in industry.

Freshman English is designed to ground the student in the fundamentals of grammar, composition, and literature. Material covered includes the parts of speech and their correct usage, the art of writing clear, short compositions, and the weekly reading and discussion of a short story. Introduction of S.R.A. Reading Laboratory.

Sophomore English carries the student to a more advanced level in the areas of study introduced in his freshman year. It includes both written and oral composition, stressing the clear presentation of ideas; more short stories, as well as a full length novel; advanced grammar; and a vocabulary building program.

Junior English includes more written and oral composition, with emphasis on trade subjects. More time is devoted to literature than in previous years; the student is introduced to plays, articles and poetry. Parliamentary procedures and further vocabulary studies are also covered.

Senior English emphasizes the classics of American literature, from the pre-Revolutionary period to the present. Composition work centers on writing more involved technical reports of different types. Vocabulary development is stressed as an aid to effective communication.

ECONOMICS

This course is intended to give a comprehensive introduction to modern economic life. The course is divided into two parts:

First—the structure and function of the economic system; a consideration of the theories of consumption and production of goods.

Second—the fundamental processes of money and banking, collective bargaining and finances of government operation.

Economic courses include outside speakers and audio-visual materials for effective demonstration.

GENERAL SCIENCE

FRESHMEN— The first half of this two year course includes the study of atmosphere, air pressure, water and its uses, heat production, weather, climate, light, the solar system and the earth's surface.

SOPHOMORE—The second half deals with the basic principles of electricity, magnetism, biology, nutrition, health, conservation, communication methods and modern transportation.
Both courses include numerous class demonstrations, films and student projects.

PHYSICS

SENIOR— This course is designed to familiarize the students with the following: English and metric measurement, work, density, power, friction, hydraulics, acceleration, sound, light, color, magnetism and composition of forces.

PLANE GEOMETRY

JUNIOR— The geometry course is designed to assist the student in solving related problems of the respective trades, areas of study are triangles, circles, angles, symbols, ratio, proportion, square root and summary of theories and axioms.

ALGEBRA I

SOPHOMORE—Study of fundamentals, algebraic operations and graphs, number systems, symbols, factoring, exponents, radicals and solving equations.

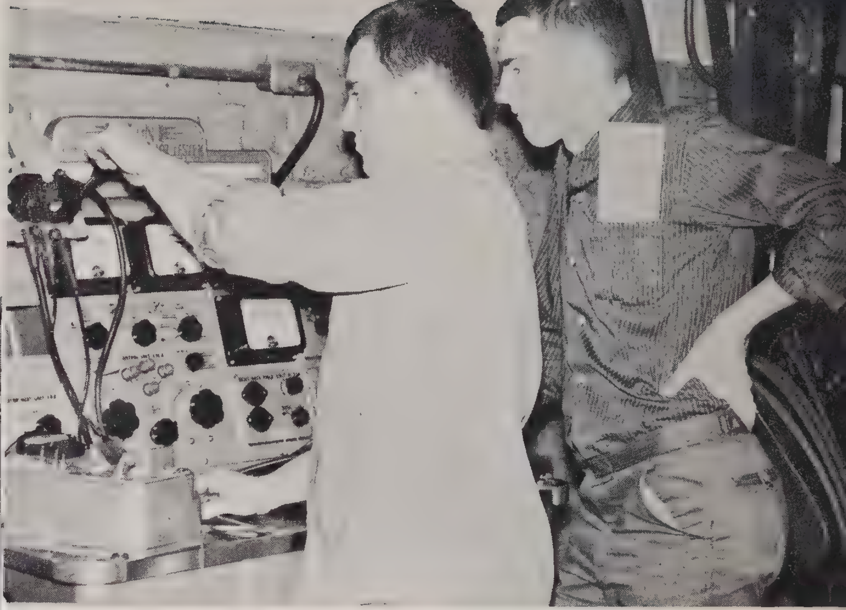
Note— The successful completion of algebra I is a prerequisite for the study of algebra II.

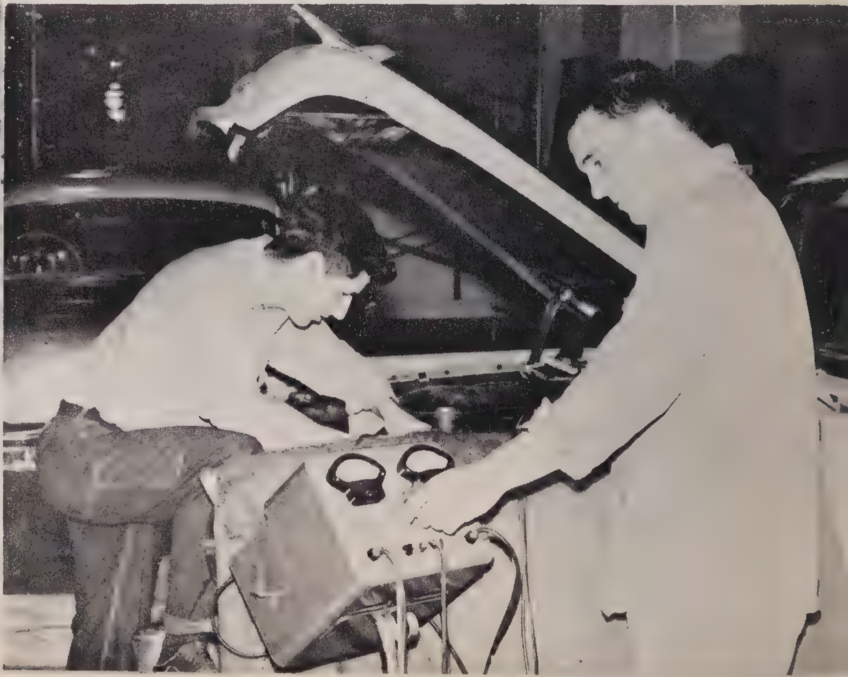
ADVANCED ALGEBRA II

SENIOR— Complete review of algebra I and covers quadratic equations, simultaneous equations, special products, special factors, fractions, trinomials, complex fractions, plotting equations and review of all algebraic principles.

RELATED DEPARTMENT

These subjects include the practical mathematics and drawing related to the specific subject fields being studied





The Automobile Department of the New Bedford Vocational High School has one of the finest equipped and most modern shops of its kind in the State. This course offers the interested student an excellent opportunity to become a part of the second largest industry in the United States. The four year program is as follows:

Freshman Year	Care and use of small tools, soldering, tire work, polishing and waxing cars, lubrication, mufflers, and mechanical work using wrenches.
Sophomore Year	Springs, shock absorbers, align wheels, balance wheels. Overhaul transmissions, standard and automatic, overhaul clutch. Overhaul hydraulic units, brakes, and steering gear, standard and power.
Junior Year	Recondition motors, cooling systems, lubrication systems, oil pumps, fuel pumps, carburetors, ignition circuits, lighting circuits, automobile and marine motors,
Senior Year	Inspect and repair electrical systems, lighting and ignition. Overhaul starters, generators, magnetos, voltage regulators. Battery work, valve timing, motor tune up, carburetors, fuel pumps. Automotive machine shop work, welding. Body and fender repairs, spraying. Overhaul small gasoline motors, outboard motors. Garage experience.

AUTOMOBILE DEPT.

CARPENTRY DEPARTMENT

The Freshman year is concerned with developing a firm basis for the four year carpentry course at Vocational. The boys are taught the fundamentals of carpentry, good working habits and good citizenship. Freshmen become familiar with the principle woods, their uses, grades and classification. They are also taught the use and care of hand tools, such as saws, planes, chisels, gauges, boring and drilling tools. Small projects are developed throughout the year which include boxes, saw horses, shelves, small stools, etc. We teach the boys to make all the joints used in carpentry and joinery such as lap joints, rabbit, mortise, tenon and dovetail. The boys learn to use paint, varnish, stain and various thinners. During the year we do minor maintenance work around the school buildings such as glazing sash and painting.

The second year the Sophomores are the jobbers of the Carpentry Department. They maintain all of the school property such as windows, locks and doors. In addition to this they build tool cribs, work benches and other equipment that other departments need. The second year boy is also introduced to another phase of Carpentry, power tools. Power tools include table saws, band saws, radial saw, jointer and planer. They are taught the basic uses and safety rules in the operation of these machines.

The third year is devoted to mill work, kitchen cabinets, cupboards, book cases, drawer cases, sash and window frames, doors and door frames. At this time a student is capable of doing a job completely, including layout and estimating. We also teach the technology of machinery and the more difficult setups and maintenance of woodworking machines at this time. The third year also includes saw filing and knife grinding.

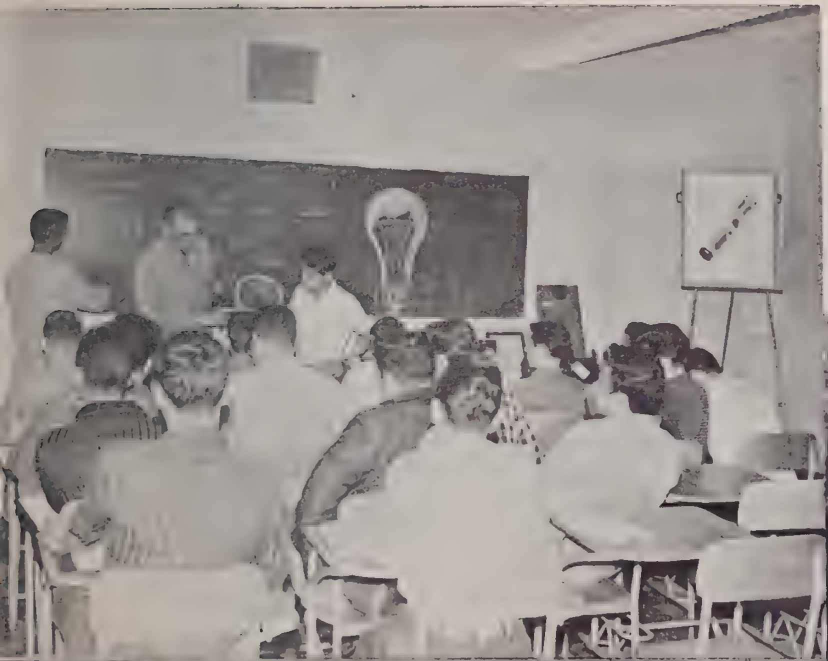
The Senior year is spent rounding out the progressive steps the boys have been trained for. During the fourth year, the boys figure, estimate and order the materials needed to construct and build jobs equal to the building in trade and industry. We remodel kitchens, install cabinets, tile floors and ceilings. Part of the year is spent in house construction including framing, roof framing and the shingling of both walls and roofs. We also do some cement work on various types of concrete forms.

In all four years of shop, we teach the related science that goes with the job they are doing at that time.

MACHINE DRAFTING DEPT.

The Machine Drafting course is a four year program designed to give the student a thorough preparation and solid background in this occupation. The course content is divided into four years as follows:

1. Freshmen are instructed in the selection and use of drawing instruments, lettering, applied geometry, theory of orthographic projection, dimensioning and Isometric Drawing.
2. Sophomores receive instruction in making shop drawings from pictorial views, auxiliary views, sections and conventions, screw threads, keys, rivets and springs.
3. Juniors receive instruction in details of working drawings, racks, spur gears, bevel gears, worms and wheels, helical gears, cams, jigs and fixtures.
4. Seniors receive instruction in developments of pyramids, cylinders, cones, and transition pieces. Jig and fixture details for manufacture plus welding drawings are also part of the senior class instruction.



ELECTRICAL DEPARTMENT

AIM:

The electrical trade course at this school is intended to offer all students the fundamentals of electricity along with all the necessary skills and experiences for a student to become a competent electrical construction and service worker in electrical trade fields.

INSTRUCTION OFFERED:

Shop and technical instruction and job opportunities are given in the following areas of electrical work known as:

Trade Practice and Technical Trade Subjects:

Signal Systems — (Audible — Visual)

Electrical Construction — (All approved wiring methods)

Fixtures — (Residential — Commercial — Industrial)

Appliances — (Manual — Automatic)

Electricity Machinery & Equipment — (Motors — Generators — Controls — Transformers — Instruments)

Illumination — (Incandescent — Vapor — Radiant Energy — Process)

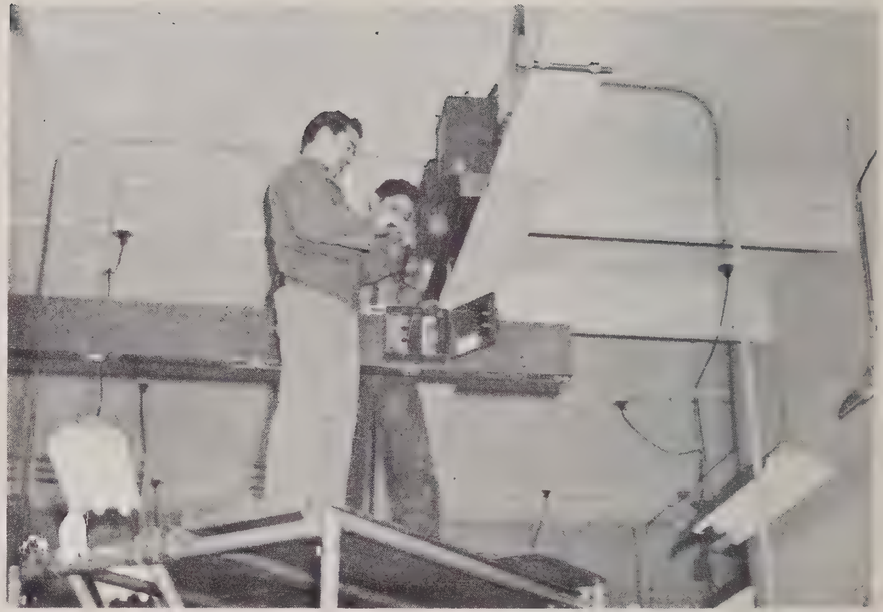
Communications — (Wired — Telephone — P. A. Systems — Intercom)

Electronics — Basic — (Industrial Control and Operational)

A high degree of skill and technical knowledge is of primary importance in the above trade subjects and the quality of the work done equals best trade standards as well as those of the National Board of Fire Underwriters for electrical installations.

In addition to the above shopwork phase of instruction there are two other phases in the program to give a broad technical and social understanding.

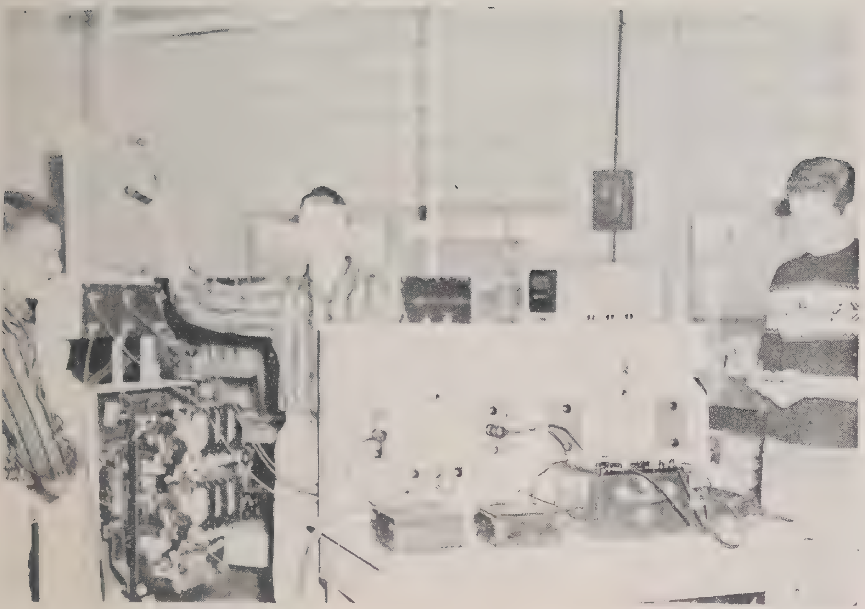
RELATED INSTRUCTION PHASE Specific Technical Subjects
Mathematics of the trade — Trade theory — Drawing



PRACTICAL LEARNING:

An important part of the students learning is obtained from carrying on the responsible electrical work within the school plant which consists of construction, operation and maintenance of all school electrical services and equipment. Much of this work is drawn by a work order system from the following:

School Generators — Switchboards — Distribution Feeders
Maintenance of Several Hundred School Motors and Controls
Several Clock & Program Systems
Three Schoolwide Sound Amplifiers with 100 Speakers
Many Electric Welders and Associated Controls
Electric Ovens — Furnaces — Kilns — Automatic Controls
Hundreds of Electrical Lighting Fixtures
Hundreds of Portable Electrical Tools and Appliances



SHOPS - LABORATORIES - EQUIPMENT

The electrical shopwork instruction is conducted in four spacious well equipped wiring and construction shops.

An excellent electrical machinery laboratory is used for practical instruction in this field.

Electronics is a distinct phase of instruction and the department has a fine laboratory set up for this purpose.

A recently added and expanding section of the Electrical Division is that of Electrical Appliance Service and Repair.

All of the above shops and laboratories have adjoining classroom sections where Related Science and special technical subjects are offered in each distinct phase of instruction.

Equipment, tools and instructional aids are the finest used and add to the quality and efficiency of instruction.

FIRST YEAR

	Term I		Term II
No.	Course	No.	Course
S-101	Basic Circuits and Wiring I	S-102	Basic Circuits and Wiring I
S-111	Trade Mechanics	S-112	Trade Mechanics
S-121	Related Science	S-122	Related Science and Code Rules

SECOND YEAR

	Term I		Term II
No.	Course	No.	Course
S-203	Electrical Wiring II (Commercial)	S-204	Electrical Wiring II (Commercial)
S-213	Appliance Maintenance and Repair	S-213	Appliance Maintenance and Repair
S-223	Related Science and Code Rules	S-223	Related Science and Code Rules

THIRD YEAR

	Term I		Term II
No.	Course	No.	Course
S-305	Electrical Wiring III (Industrial)	S-306	Electrical Wiring III (Industrial)
S-331	Electrical Machinery and Equipment I	S-332	Electrical Machinery and Equipment I
S-341	Industrial Electronics I	S-342	Industrial Electronics I
S-325	Related Science and Code Rules	S-326	Related Science and Code Rules

FOURTH YEAR

	Term I		Term II
No.	Course	No.	Course
S-407	Electrical Construction and Maintenance	S-408	Electrical Construction and Maintenance
S-433	Electrical Machinery and Equipment II	S-434	Electrical Machinery and Equipment II
S-443	Industrial Electronics II	S-444	Industrial Electronics II
S-427	Related Science and Code Rules	S-428	Related Science and Code Rules

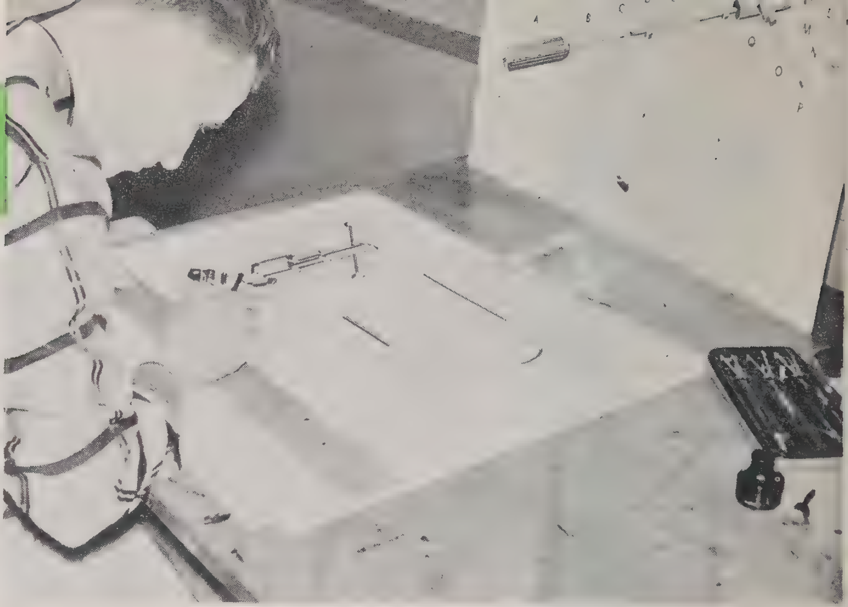
INDUSTRIAL DESIGN DEPT.

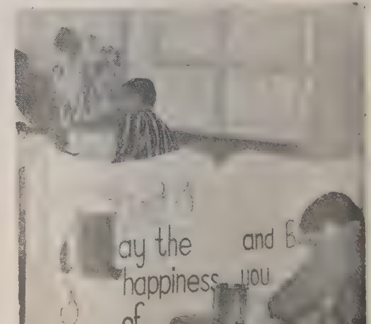
A student entering the Industrial Design Department will find that his studies will consist of the study of the basic units of the trade, such as Lettering, Drawing, Color, Geometry, Layout, Design, Reproduction, and Painting.

The only deviation from the above studies for the first two years, comes in the form of application of those principles already learned as applied to contest work, inter-department work and on occasion, working with Juniors and Seniors on school or charitable projects.

While the Juniors and Seniors continue the study of the basic units of the trade, their major work involves the application of all the units of the trade in such work as; Layout and design all Poster work and illustrations, all school lettering and painting, Technical drawing and Architectural Drawing problems, Presentation Drawings and color sketches, Sign design and construction, Yearbook layout, dummies and finished art work suitable for reproduction, designing all Gym decorations, all working drawings to be used by other departments, and time permitting, a 20 page booklet on Scholastic Activities, Health, Manufacturing or Contest Entries, whichever they choose.

Upon the completion of the Industrial Design Course, a student has basic knowledge necessary to enter one of the many phases of the trade such as Layout Artist, Illustrator, Technical Draftsman, Sign Writer and Builder, Silk Screening, Interior Decorator, Etc., or they may use this basic foundation to continue their education in a specific phase of the trade such as Illustration, Advertising Layout, Fine Arts Painting, etc.





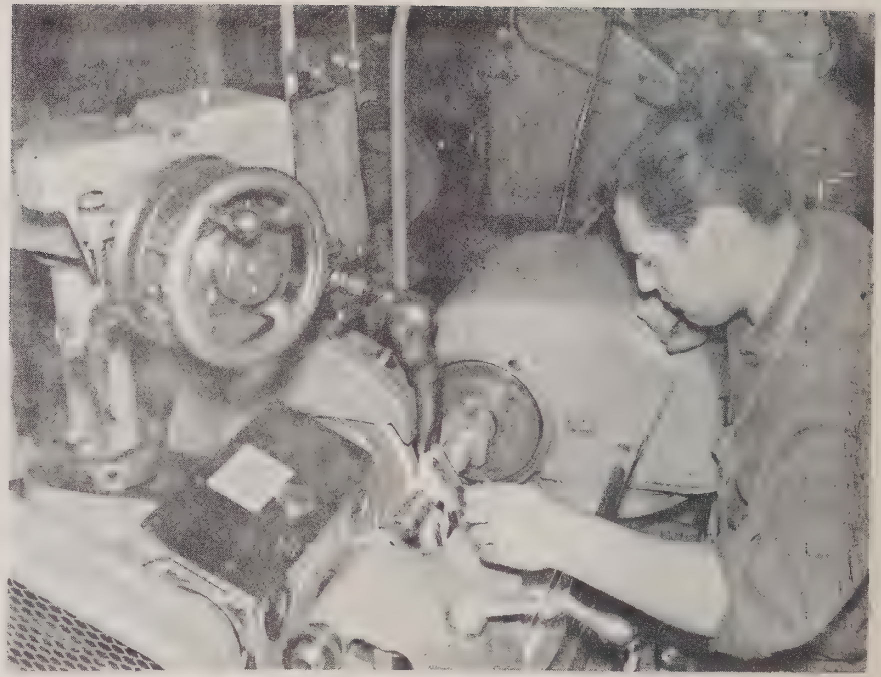
MACHINE DEPARTMENT

The course given to boys entering the Machine Department has been developed with the recognition of the following needs:

A. It is essential to have a course of study developed to embrace the fundamental needs of industry and flexible enough to allow the incorporation of new methods and processes.

B. The controlled use of modern shop equipment and tools equivalent to the types used in industry and the strict adherence to commercial work standards and requirements. At present we have 120 machine work stations.

This course as offered when completed allows the student to enter the trade as a machinist without having to undergo the usual period of apprenticeship. It is true that on completion of the course, the student is not an experienced machinist, as that requires experience gained only by years of continued close association with the trade.



The value of the experiences gained through the satisfactory completion of the course offers to the student the opportunity of entering into allied fields requiring more and higher technical skills—such as tool and die making, mold making, sales engineering and service representatives. Some of our graduates enter directly into training programs in industry designed to lead the student into positions of responsibility.

The course is of four years duration and a high school diploma is awarded upon it's satisfactory completion.

The necessary related work which is essential to the successful and intelligent understanding of the processes used to carry a job to it's successful completion is given both in class and on the actual job. This is carried out through each year of shop training.

The first year boys are trained extensively in the many varied lathe and drill press operations. The identification and use of the many hand tools, uses of lathe attachments and accessories, drill vises, jigs and fixtures.

Second year boys continue with lathe and drill press work and receive primary training in the operation of surface and cylindrical grinders, turret lathe, miller and shaper work.

Third year boys start to receive advanced training in lathe, shaper, planer, miller, and grinder operations. Instruction is also given in the operation of thread, centerless, and cutter grinders which is also carried on into the fourth year. At this time the student becomes familiar with the uses of the various inspection tools, such as the hardness tester, the comparator, visual electric gages, gage blocks, sine bars, and optical comparators.

Fourth year boys, in addition to a constant program of reviewing and adding new skills in general shop work are taught the rudiments of an extensive heat treating and metals technology hardening course. Reviewing and testing programs are constantly carried on to insure the graduate meets with commercial standards of accuracy, speed, and dependability.

STEAM ENGINEERING DEPT.

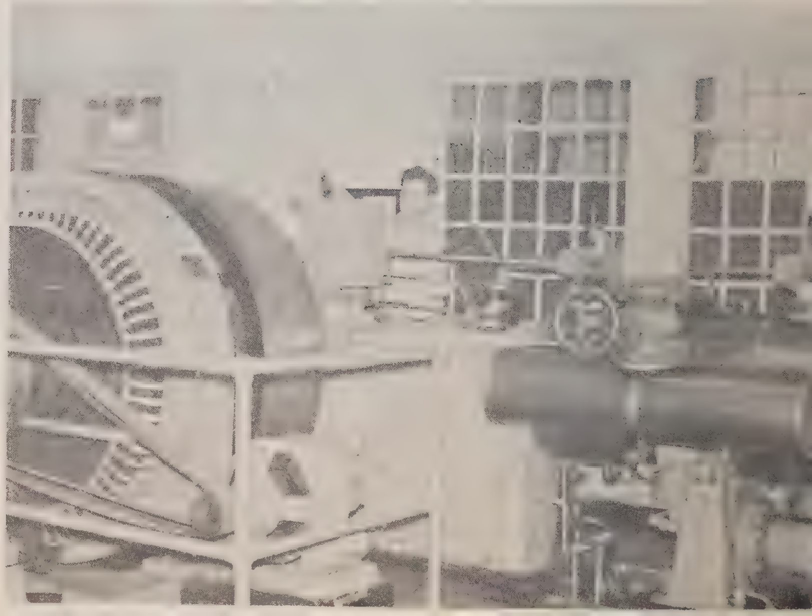
The fundamental purpose of the Steam Engineering department is to train boys in the knowledge of power plant engineering for the stationary trade. However, many of our graduates do enter allied fields such as marine fireman, plumbers and oil burner installers. The boys are taught the fundamentals of steam boilers and engine operation for preparation of Mass. State licenses. In his Freshman year, he is taught to recognize tools and their application, types of packing, pipe fittings, valves, their use and construction, gauges, fusible plugs, pumps, boiler construction and it's appurtenances, boiler operation and state laws pertaining to the trade.

In his Sophomore year, he is taught to understand the application of power plant equipment such as receivers, heaters, inspirators and injectors, advance theory of pumps, lubricators, use of traps and other shop equipment.

In his Junior year, he is taught valve setting of pumps, steam engineer construction and valve setting, engine operation, construction and application of steam traps, damper regulators, heating systems, safety and relief valves, engine governors, and the laws pertaining to boiler construction.

In his Senior year, he is taught steam boiler and license classification, design of boiler joints, safety valve laws, feed water regulator, boiler room chemistry, governors and eccentrics, engine room repairs, state examinations.

By the conclusion of this course, the student must have successfully passed the State Fireman examination to qualify for a diploma.



As in other courses, the welding department is a 4 year course of study.

This includes the study, use and application of oxyacetylene, electric arc, resistance, and inert arc welding machines as applied to the various phases of horizontal, vertical and overhead welding. This covers the use of various types and sizes of rods for various materials.

The equipment in this shop is modern and comparable to industrial requirements.

At present there are 17 oxyacetylene stations, 1 cutting station, 12 arc welding stations ranging from 150 to 400 AMPS in power, 3 inert arc weld stations and 2 resistance welders.

In addition to welding, sheet metal layout is taught and the following sheet metal working tools are used: 1-8' brake, 1-48" box brake and 1-42" shear, and 36" sheet forming rolls. There are in addition to these, the various hand tools required in the operation of any modern shop.

Graduates of this department are employed throughout area industries in various capacities, such as journeymen, welders capable of welding, forming, laying out and designing sheet steel, steel plate and structural members.

Some of our welding graduates have developed into leadmen, foremen, design engineers and owners of their own businesses.

WELDING DEPARTMENT

EXTRA CURRICULA ACTIVITIES

1. **ATHLETICS** — Track - Soccer - Basketball - Golf - Baseball - Football
2. **INTRA-MURALS** — Department League - Basketball - Softball - Track
3. KEY CLUB - DRAMATICS - SLIDE RULE CLUB - DEBATING - STUDENT COUNCIL - HONOR SOCIETY

AUXILIARY FACILITIES

Auditorium - Gym - Libraries - Laboratories

GUIDANCE

At the present time the individual Department Supervisors, because of their many years of contact with industry and the trades, do an excellent job in placing the graduates of their respective departments.

Because of their many years of work with youngsters, these same men are well qualified and willing to assist any student with the many problems that may arise during his school career.

PROMOTION AND GRADUATION REQUIREMENTS

Graduation requirements are based upon the accumulation of a four year total number of credits ranging from 91 to 111½. The exact number needed is determined by the evaluation of elective subjects taken during the Junior and Senior years. No student who loses a total of more than 12½ credits for the four years can graduate from this school.

Depending again upon the choice of electives, the yearly accumulation of credits is as follows:

Freshmen — 26 credits

Sophomores — 26½ to 28½ credits

Juniors — 24½ to 29 credits

Seniors — 24 to 28 credits

Brochure Designed By The
INDUSTRIAL DESIGN DEPARTMENT
NEW BEDFORD VOCATIONAL HIGH SCHOOL

Printed By The
HOLYOKE TRADE HIGH SCHOOL